

## CLAIMS.

- 1- An apparatus comprising an optical head for reading and/or writing data in an optical carrier having a circular shape, comprising tracks wound round the center of the carrier, this apparatus comprising:
  - an optical assembly constituting said head for providing a light spot onto the carrier, having a main light path direction defined by the direction of the light emitted by a first laser device and/or by reflecting mirror devices, and an exit pupil,
  - a moving part for moving said optical head in a moving direction which is perpendicular to the tracks, the light path direction and the moving direction enclosing an angle for achieving adequate light intensity at the level of said exit pupil.
- 5 2- An apparatus as claimed in claim 1, wherein the order of magnitude of said angle is 45°.
- 10 3- An apparatus as claimed in claim 2, the magnitude of said angle is 45°±1.
- 15 4- An apparatus as claimed in claims 1 or 2, wherein said angle is given by a correct illumination of said exit pupil, considering that a diagonal oval spot is required for a processing of data on said carrier.
- 5 5- An apparatus as claimed in claims 1 to 4, suitable for optical carriers of the DVD recordable type, wherein the spot is a diagonal spot having a 45° orientation with regard to the track direction.
- 20 6- An apparatus as claimed in any of the claims 1 to 5, wherein a beam shaper is provided in the light path of the laser.
- 7- An apparatus as claimed in any of the claims 1 to 6, wherein a second laser device is provided.
- 25 8- A method of reading and/or writing an optical data carrier, comprising the step of:

- providing an angle between a main light path direction of an optical head and tracks which are fitted in the data carrier, so as to satisfy requirements for reading and/or writing this optical data carrier.

9- An optical head suited for an apparatus as claimed in claims 1 to 7.